UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,283	03/25/2005	Zijing Pang	QLZ 05-1-1	9150

23531 7590 11/26/2008

SUITER SWANTZ PC LLO
14301 FNB PARKWAY
SUITE 220
OMAHA, NE 68154

EXAMINER	
PILKINGTON, JAMES	
ART UNIT	**PAPER NUMBER**
3656	

MAIL DATE	DELIVERY MODE
11/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,283	PANG, ZIJING	
	Examiner	Art Unit	
	JAMES PILKINGTON	3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3 and 5-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3 and 5-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Widdrington, USP 3,252,349 in view of Kiernan, USP 3,407,681 and further in view of CN 99222132.3.

Widdrington discloses an elastic couple rotor turning gear, characterized in that:

- an elastic support (11a, 11b and 11c, everything has an elastic property) is mounted on a frame (13) of a driven device (device is a drive mechanism)
- a casing (11d, 11e and 18a) with a U-shaped cross section being connected to the elastic support (11a, 11b and 11c) for providing an elastic connection between the frame (13) of the driven device and the elastic couple rotor turning gear
- a casing cover (16) being firmly fixed on the casing (on portion 11d)
- a speed reducer (gears 21/22 on the right of Figures 1 and 2) and an electric motor (39) installed evenly or symmetrically positioned at an angle of 180°

- an output shaft (20) of the speed reducer (21/22) extending into the casing (11d, 11e and 18a, extends into portion 18a) under the casing cover (16)
- the output shaft having a pinion gear (19) mounted thereon and meshed with a gear body (teeth on 10) of a bull gear (10) positioned in the casing (11d, 11e and 18a), the bull gear being connected to a shaft coupling (26) and the shaft coupling being fixed on a rotor of the driven device (26 and 27 make the connection to the load, element providing torque resistance)
- wherein the shaft coupling (26) is of an integral type, and the shaft coupling (26) is connected to the rotor of the driven device through a plurality of radial linkages (27)
- wherein an axial sliding clearance (under gear 10, see space on left of Figure 3) and a radial sliding clearance (the radial side of the gear is connected via a bearing 12 which creates a clearance) are formed between the gear body (teeth of 10) of the bull gear (10) positioned inside the casing and the casing (11d, 11e and 18a)

Widdrington does not disclose that the bull gear and the shaft coupling are connected through keys via a key seat or an upright post, wherein an air clearance is formed between an inner round wall of the bull gear and the shaft coupling, and three screws (15) for adjusting concentricity are evenly distributed along a circumference of the shaft coupling, and wherein the bull gear includes a key seat.

Kiernan teaches a bull gear (2) and a coupling (6) that are connected through keys (pins labeled as 8) via a key seat (hole in 6), wherein an air clearance (between

back of 2 and 6) is formed between an inner round wall (back wall) of the bull gear (2) and the shaft coupling (6), and three screws (screws labeled 8) for adjusting concentricity are evenly distributed along a circumference of the shaft coupling and wherein the bull gear (2) includes a key seat (hole for pins and screws 8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fixed connection between the shaft coupling and the gear of Widdrington with the keys and screws and key seat coupling of Kiernan since substitution of one attachment with another would achieve the predictable result of connecting the gear to the coupling.

Widdrington in view of Kiernan discloses all of the claimed subject matter as disclosed above.

Widdrington in view of Kiernan does not disclose that the elastic support includes an upper ring and a lower ring, the upper ring being connected to the lower ring through a plurality of elastic ribs and wherein the plurality of elastic ribs are made of an elastic material.

CN 99222132.3 teaches an elastic support which includes an upper ring (to the right of 4 in Figure 1) and a lower ring (to the left of 4 in Figure 1), the upper ring being connected to the lower ring through a plurality of elastic ribs (at 4) and wherein the plurality of elastic ribs are made of an elastic material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use elastic support of CN99222132.3 in place of the elastic

support of Widdrington in view of Kiernan. Substituting the elastic support of Widdrington in view of Kiernan with the rib type elastic support of CN99222132.3 would yield the predictable result of removing rigidity of the device so that it can withstand more of a shock load.

Response to Arguments

3. Applicant's arguments filed 11/03/08 have been fully considered but they are not persuasive.

4. The Applicant argues that CN99222132.3 [Pang] does not teach an upper ring and a lower ring connected through a plurality of elastic ribs.

First, the Applicant asserts that the references by the Applicant in the rejection above are vague. To better define what is meant by the phrases “to the left of 4” and to the right of 4” the Examiner directs the Applicant to the figure in their Remarks where reference character 4 points to a rib/connecting structure. This structure has two ends to the left and right of where character 4 points. It is the end portions of the ribs, to the left of 4 and to the right of 4 which make the rings.

Second, the Applicant asserts that there is no upper or lower in Pang. The claims do not define a particular orientation of the device to distinguish upper and lower. Turning the device of Pang on its side teaches an arrangement where there is clearly an upper and a lower ring. In addition, shifting one of the rings in Pang to be higher than the other without defining any connection structure of the rings to the base elements in the claim would still be obvious to one of ordinary skill since shifting the left or right side

of the device of Pang, in the horizontal configuration, to be higher or lower would not change the function of the device and would only require the ribs (4) to be angled.

5. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES PILKINGTON whose telephone number is (571)272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES PILKINGTON/

Examiner, Art Unit 3656

11/21/08

/Richard WL Ridley/

Supervisory Patent Examiner, Art Unit 3656